WHAT IS CLAIMED IS:

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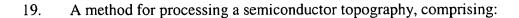
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- 1. A method for processing a semiconductor topography, comprising polishing the topography on a polishing pad without depositing water on the polishing pad.
- 2. The method of claim 1, wherein a pH of a polishing solution on the polishing pad is substantially uniform during the polishing.
- 3. The method of claim 1, wherein a pH of a polishing solution on the polishing pad varies by less than about 2.5 during the polishing.
 - 4. The method of claim 1, wherein a pH of a polishing solution on the polishing pad varies by less than about 30 % during the polishing.
- 5. The method of claim 1, wherein subsequent to the polishing, a substantial amount of residual slurry particles are present on the topography.
 - 6. The method of claim 1, wherein subsequent to the polishing, the topography is substantially free of agglomerated slurry particles.
 - 7. The method of claim 1, wherein subsequent to the polishing, the topography is substantially free of slurry particles having a particle size of greater than about 10 μ m.
- 8. A semiconductor topography comprising a polished layer formed on a substrate,
 25 wherein a substantial amount of residual slurry particles are present on the polished layer.
 - 9. The topography of claim 8, wherein the residual slurry particles have a particle size of less than about 10 μm .

- 10. The topography of claim 8, wherein an upper surface of the polished layer is substantially planar.
- The topography of claim 8, wherein the polished layer comprises less than about200 microscratches.
 - 12. The topography of claim 8, wherein a total number of defects present on the polished layer is less than about 600.
- 13. A method for processing a semiconductor topography, comprising depositing water on a polishing pad in a plurality of dispense intervals during polishing of the topography to reduce a rate of change of a pH of a polishing solution on the topography.
- 14. The method of claim 13, wherein each of the plurality of dispense intervals comprise a dispense time of less than about 30 seconds.
 - 15. The method of claim 13, wherein one or more of the plurality of dispense intervals comprise a dispense time of less than about 3 seconds.
- 20 16. The method of claim 13, wherein the polishing solution comprises slurry present on the topography prior to the polishing.
 - 17. The method of claim 13, wherein additional polishing solution is not deposited on the polishing pad during the polishing.
 - 18. The method of claim 13, wherein the topography comprises an upper layer of oxide formed across the topography, and wherein the oxide is substantially planar subsequent to the polishing.

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polishing the topography on a primary polishing pad during a primary polishing step without depositing water on the primary polishing pad; and

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polishing the topography on a final polishing pad during a final polishing step, comprising depositing water on the final polishing pad in a plurality of dispense intervals to reduce a rate of change of a pH of a polishing solution on the topography.

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20. The method of claim 19, further comprising transferring the topography from the primary polishing pad to the final polishing pad subsequent to the primary polishing step, wherein a substantial amount of residual slurry particles are present on the topography during the transferring.

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